

## عنوان مقاله:

Study of Mechanical / Structural Relationship in Polysulfone/ Polysulfone-g-Polyacrylate Blend Membranes

## محل انتشار:

کنگره ملی شیمی و نانو شیمی از پژوهش تا توسعه ملی (سال: 1396)

تعداد صفحات اصل مقاله: 15

## نویسندگان:

Mehdi Mahmoudian - Nanotechnology Research Institute, Urmia University, Urmia, Iran

Hossein Mahdavi - University of Tehran, Tehran, Iran

Ehsan Nozad - Nanotechnology Research Institute, Urmia University, Urmia, Iran

## خلاصه مقاله:

The mechanical properties of modified polysulfone membranes decrease with increasing of constituents' hydrophilicity. So these properties was investigated for two special blend membranes which were made with polysulfone and (Polysulfone-g-poly (N-butylacrylate), Polysulfone-g-poly (tert-butylacrylate) ) as modification ingredients. The investigated mechanical properties include tensile strength at break and the elongation at break. The effects of modified polysulfone content in blends on the mechanical properties of resulting membranes were measured and compared. Results showed that the tensile strength at break decreased with an increase of the copolymers content, despite the increase in the elongation at break. The prepared membranes were characterized in terms of pure water flux (PWF), water contact angle, cut off molecular weight, salt rejection and scanning electron microscopy (SEM). Thermal properties of membranes were studied with DSC.

## کلمات کلیدی:

Blend membrane, mechanical properties, modified membrane

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/718105>

